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Marc Shapiro

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MICROSOFT CORPORATION

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EXAMINER

MORRISON, JAY A

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2168

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/786,674

Applicant(s)

SHAPIRO ET AL.

Examiner

Jay A. Morrison

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. Claims 1-48 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1,7-12,17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the action of the first application" in lines 15-16. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination it is assumed the Applicant meant "the at least one action of the first application".

Claim 7 recites the limitation "the action of the first application" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination it is assumed the Applicant meant "the at least one action of the first application".

Claim 8 recites the limitation "the action of the first application" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim. For purposes of

examination it is assumed the Applicant meant "the at least one action of the first application".

Claim 9 recites the limitation "the action of the first application" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination it is assumed the Applicant meant "the at least one action of the first application".

Claim 10 recites the limitation "the action of the first application" in lines 1-5. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination it is assumed the Applicant meant "the at least one action of the first application".

Claim 11 recites the limitation "the action of the first application" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination it is assumed the Applicant meant "the at least one action of the first application".

Claim 12 recites the limitation "the action of the first application" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim. For purposes of examination it is assumed the Applicant meant "the at least one action of the first application".

Claim 17 recites the limitation "the action" in line 7. There is insufficient clear antecedent basis for this limitation in the claim. There are multiple actions and it is not clear what action is being referenced.

Claim 45 recites the limitation "the action" in line 7. There is insufficient clear antecedent basis for this limitation in the claim. There are multiple actions and it is not clear what action is being referenced.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-4,7-17,39 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims do not recite a practical application by producing a physical transformation or producing a useful, concrete, and tangible result. To perform a physical transformation, the claimed invention must transform an article or physical object into a different state or thing. Transformation of data is not a physical transformation. A useful, concrete, and tangible result must be either specifically recited in the claim or flow inherently therefrom. To be useful the claimed invention must establish a specific, substantial, and credible utility. To be concrete the claimed invention must be able to produce the same results given the same initial starting conditions. To be tangible the claimed invention must produce a practical application or real world result. In this case the claims fail to perform a physical transformation because the claims are directed to operating on data. The claims are useful and concrete, but they fail to product a tangible result because the result is not stored in a non-volatile medium or, for example, reported to a user.

6. As per claims 35,38,41, these claims disclose a system but do not describe any hardware, which is required for a system claim to be statutory. Accordingly, these system claims are rejected as non-statutory for failing to disclose any hardware. It is noted that the amendments made do not overcome the rejection because the components are not necessarily hardware-based components.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 37 and 43-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Mellen-Garnett et al. ('Mellen-Garnett' hereinafter) (Publication Number 2003/0093479).

As per claim 37, Mellen-Garnett teaches

A computer readable storage medium encoding a computer program for executing on a computer system a computer process, the computer process comprising: (see abstract)

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recording action information for one or more logical actions of a first computer-related source and an associated relationship with a recorded logical action of a second computer-related source. (collaboration module, paragraph [0041],[0043])

As per claim 43, Mellen-Garnett teaches

A computer-readable medium storing a data structure comprising: (see abstract)
a first data field storing an action identifier for a primary action; (storage, paragraphs [0046]-[0047])

a second data field storing a source identifier for a first computer-related source associated with the action identifier; (storage, paragraphs [0046]-[0047])

a third data field storing a related action identifier for a related action; (storage, paragraphs [0046]-[0047])

and a fourth data field storing a source identifier for a second computer-related source associated with the related action identifier. (storage, paragraphs [0046]-[0047])

As per claim 44, Mellen-Garnett teaches

The data structure further comprises: a fifth field storing a relationship descriptor specifying the relationship between the primary action and the related action. (storage, paragraph [0046])

As per claim 45, Mellen-Garnett teaches

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the data structure further comprises: a fifth field storing a container action identifier identifying a container action containing the primary action within the action hierarchy. (storage, paragraph [0046])

As per claim 46, Mellen-Garnett teaches

the data structure further comprises: a fifth field storing a component action identifier identifying a component action contained by the primary action within the action hierarchy. (storage, paragraph [0046])

As per claim 47, Mellen-Garnett teaches

the data structure is recorded in an action log and further comprising: a fifth field storing an inactive flag indicating that the primary action has been made inactive but the data structure remains persistent the action log. (storage, paragraph [0046])

As per claim 48, Mellen-Garnett teaches

the data structure further comprises: a fifth field storing an action descriptor describing the primary action. (storage, paragraph [0046])

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1,4-8,14-18,21-25,31-33,35-36,38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mellen-Garnett et al. ('Mellen-Garnett' hereinafter) (Publication Number 2003/0093479) in view of Choudhary et al. ('Choudhary' hereinafter) (Choudhary, Rajiv, Dewan, Prasun (1995): A General Multi-User Undo/Redo Model. In: Marmolin, Hans, Sundblad, Yngve, Schmidt, Kjeld (ed.): Proceedings of the Fourth European Conference on Computer-Supported Cooperative Work - ECSCW 95. 11-15 September, 1995, Stockholm, Sweden. p.231-246).

As per claim 1, Mellen-Garnett teaches

A computer-implemented method for modifying a previously applied action in an application, the method comprising: (see abstract and background)

recording at least one action corresponding to a first application and an associated relationship between the at least one action of the first application and a recorded action of a second application; (one or more applications, paragraphs [0034],[0041])

executing a first operation on the at least one action of the first application, the first operation causing a first modification to the at least one action of the first application; (collaboration module, paragraphs [0041],[0043])

based on the relationship between the at least one action of the first application and the recorded action of the second application, the second operation causing a

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second modification to the recorded action of the second application corresponding to the first modification to the action of the first application (collaboration module, paragraphs [0041],[0043]).

Mellen-Garnett does not explicitly indicate “executing a second operation on the recorded action of the second application responsive to the execution of the first operation on the at least one action of the first application”.

However, Choudhary discloses “executing a second operation on the recorded action of the second application responsive to the execution of the first operation on the at least one action of the first application” (command undone in both command histories, ‘Basic Multi-User Undo/Redo’ section, third paragraph),

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of “executing a second operation on the recorded action of the second application responsive to the execution of the first operation on the at least one action of the first application” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 4, Mellen-Garnett teaches detecting selection of the recorded action of the first application from a plurality of recorded actions of the first application and the second application. (paragraphs [0041],[0043])

As per claim 5,

Mellen-Garnett does not explicitly indicate “displaying recorded actions of the first application and the second application in accordance with causal relationships among the recorded actions.”

However, Choudhary discloses “displaying recorded actions of the first application and the second application in accordance with causal relationships among the recorded actions” (‘Corresponding Commands’ section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of “displaying recorded actions of the first application and the second application in accordance with causal relationships among the recorded actions” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 6,

Mellen-Garnett does not explicitly indicate “displaying recorded actions of the first application and the second application in accordance with chronological relationships among the recorded actions”

However, Choudhary discloses "displaying recorded actions of the first application and the second application in accordance with chronological relationships among the recorded actions" ('Basic Multi-User Undo/Redo' section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of discloses "displaying recorded actions of the first application and the second application in accordance with chronological relationships among the recorded actions" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 7,

Mellen-Garnett does not explicitly indicate "the first modification comprises an undo of the recorded action of the first application, the undo causing a compensation of the action of the first application."

However, Choudhary discloses "the first modification comprises an undo of the recorded action of the first application, the undo causing a compensation of the action of the first application" ('Basic Multi-User Undo/Redo' section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of "the first modification comprises an undo of the recorded action of the first application, the undo causing a compensation of the action of the first application" would

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have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 8,

Mellen-Garnett does not explicitly indicate "the first modification comprises a: redo of the action of the first application, the redo causing an execution of a previously inactive action".

However, Choudhary discloses "the first modification comprises a: redo of the action of the first application, the redo causing an execution of a previously inactive action" ('Basic Multi-User Undo/Redo' section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of "the first modification comprises a: redo of the action of the first application, the redo causing an execution of a previously inactive action" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 14,

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Mellen-Garnett does not explicitly indicate “the second application is inactive, the method further comprising: executing the inactive second application responsive to execution of the first operation.”

However, Choudhary discloses “the second application is inactive, the method further comprising: executing the inactive second application responsive to execution of the first operation” (‘Basic Multi-User Undo/Redo’ section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of “the second application is inactive, the method further comprising: executing the inactive second application responsive to execution of the first operation” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 15,

Mellen-Garnett does not explicitly indicate “the second application comprises a document object.”

However, Choudhary discloses “the second application comprises a document object” (‘Basic Multi-User Undo/Redo’ section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of “the second application comprises a document object” would have given those

skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 16,

Mellen-Garnett does not explicitly indicate "the second computer executing the first operation on the at least one action includes automatically executing the first operation on the at least one dependent action in response to executing the first operation on the at least one action."

However, Choudhary discloses "the second computer executing the first operation on the at least one action includes automatically executing the first operation on the at least one dependent action in response to executing the first operation on the at least one action" ('Basic Multi-User Undo/Redo' section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of "the second computer executing the first operation on the at least one action includes automatically executing the first operation on the at least one dependent action in response to executing the first operation on the at least one action" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 17,

Mellen-Garnett does not explicitly indicate “the recording includes recording a sequence of actions of the first application in a first action log and a sequence of actions of the second application in a second action log, the recorded associated relationship comprising a dependency of an action in the sequence of actions of the second application on an action in the sequence of actions of the first application, and wherein the first operation causes a modification in the action and a subsequent action in the sequence of actions of the first application and the execution of the second operation, the second operation causing a substantially similar modification in the action in the sequence of actions of the second application.”

However, Choudhary discloses “the recording includes recording a sequence of actions of the first application in a first action log and a sequence of actions of the second application in a second action log, the recorded associated relationship comprising a dependency of an action in the sequence of actions of the second application on an action in the sequence of actions of the first application, and wherein the first operation causes a modification in the action and a subsequent action in the sequence of actions of the first application and the execution of the second operation, the second operation causing a substantially similar modification in the action in the sequence of actions of the second application” (‘Basic Multi-User Undo/Redo’ section).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of “the recording includes recording a sequence of actions of the first application

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in a first action log and a sequence of actions of the second application in a second action log, the recorded associated relationship comprising a dependency of an action in the sequence of actions of the second application on an action in the sequence of actions of the first application, and wherein the first operation causes a modification in the action and a subsequent action in the sequence of actions of the first application and the execution of the second operation, the second operation causing a substantially similar modification in the action in the sequence of actions of the second application" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 18, Mellen-Garnett teaches

A computer readable storage medium encoding a computer program for executing on a computer system a computer process, the computer process comprising: (see abstract and background)

recording at least one action corresponding to a first computer related source application and an associated relationship between the at least one action of the first application and a recorded action of a second application; (one or more applications, paragraphs [0034],[0041])

executing an action management operation on the at least one action of the first application and the recorded action of the second application based on the relationship

between the at least one action of the first application and the recorded action of the second application, (collaboration module, paragraphs [0041],[0043])

Mellen-Garnett does not explicitly indicate "wherein the at least one action of the first application and the recorded action of the second application are modified based on the action management operation."

However, Choudhary discloses "wherein the at least one action of the first application and the recorded action of the second application are modified based on the action management operation" (command undone in both command histories, 'Basic Multi-User Undo/Redo' section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of "wherein the at least one action of the first application and the recorded action of the second application are modified based on the action management operation" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 21,

This claim is rejected on grounds corresponding to the arguments given above for rejected claim 4 and is similarly rejected.

As per claims 22-23,

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These claims are rejected on grounds corresponding to the arguments given above for rejected claims 5-6 and are similarly rejected.

As per claim 24,

Mellen-Garnett does not explicitly indicate “the action management operation comprises: an undo action.”

However, Choudhary discloses “the action management operation comprises: an undo action” (‘Basic Multi-User Undo/Redo’ section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of “the action management operation comprises: an undo action” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 25,

Mellen-Garnett does not explicitly indicate “the action management operation comprises: a redo action.”

However, Choudhary discloses “the action management operation comprises: a redo action” (‘Basic Multi-User Undo/Redo’ section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the

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steps of "the action management operation comprises: a redo action" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claims 31-32,

These claims are rejected on grounds corresponding to the arguments given above for rejected claims 14-15 and are similarly rejected.

As per claim 33,

Mellen-Garnett does not explicitly indicate "the second application comprises an inactive document and the computer process further comprises: executing an application on the inactive document responsive to execution of the action management operation."

However, Choudhary discloses "the second application comprises an inactive document and the computer process further comprises: executing an application on the inactive document responsive to execution of the action management operation" ('Basic Multi-User Undo/Redo' section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of "the second application comprises an inactive document and the computer process further comprises: executing an application on the inactive document

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responsive to execution of the action management operation” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 35, Mellen-Garnett teaches

A system comprising: (see abstract and background)

a first component comprising a first action log, the first action log including at least one action corresponding to a first application; (collaboration module, paragraphs [0041],[0043])

a second component comprising a second action log, the second action log including an action corresponding to a second application and an associated relationship with the at least one action corresponding to the first application; (collaboration module, paragraphs [0041],[0043])

and a third component comprising an action management module executing an action management operation on the action corresponding to second application and the at least one action of the first application, (collaboration module, paragraphs [0041],[0043])

Mellen-Garnett does not explicitly indicate “wherein execution of the action management operation causes a modification of the action corresponding to the second application and a corresponding modification of the at least one action of the first application.”

However, Choudhary discloses “wherein execution of the action management operation causes a modification of the action corresponding to the second application and a corresponding modification of the at least one action of the first application” (‘Basic Multi-User Undo/Redo’ section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of “wherein execution of the action management operation causes a modification of the action corresponding to the second application and a corresponding modification of the at least one action of the first application” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 36, Mellen-Garnett teaches

A method comprising: (see abstract and background)

recording action information for one or more logical actions of a first computer-related source and an associated relationship with a recorded logical action of a second computer-related source” (collaboration module, paragraphs [0041],[0043]).

Mellen-Garnett does not explicitly indicate “displaying the recorded action information.”

However, Choudhary discloses “displaying the recorded action information” (‘Basic Multi-User Undo/Redo’ section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of "displaying the recorded action information" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 38, Mellen-Garnett teaches

A system comprising: (see abstract and background)

"of a first computer-related source and an associated relationship with a recorded logical action of a second computer-related source. (collaboration module, paragraphs [0041],[0043])

Mellen-Garnett does not explicitly indicate "a first component comprising an action log recording action information for one or more logical actions."

However, Choudhary discloses "a first component comprising an action log recording action information for one or more logical actions" ('Basic Multi-User Undo/Redo' section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of "a first component comprising an action log recording action information for one or more logical actions" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 39, Mellen-Garnett teaches

A method comprising: (see abstract and background)

registering a first computer-related source and a second computer-related source; (collaboration module, paragraphs [0041],[0043])

and recording a first logical action applied to the first computer-related source and a second logical action applied to the second computer-related source; (collaboration module, paragraphs [0041],[0043])

recording an associated relationship between the first logical action and the second logical action; (collaboration module, paragraphs [0041],[0043])

Mellen-Garnett does not explicitly indicate "and modifying the first logical action and the second logical action based on the recorded associated relationship."

However, Choudhary discloses "and modifying the first logical action and the second logical action based on the recorded associated relationship" ('Basic Multi-User Undo/Redo' section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of "and modifying the first logical action and the second logical action based on the recorded associated relationship" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 40, Mellen-Garnett teaches

A computer readable storage medium encoding a computer program for executing on a computer system a computer process, the computer process comprising: (see abstract and background)

registering a first computer-related source and a second computer-related source; (collaboration module, paragraphs [0041],[0043])

recording a first logical action applied to the first computer-related source and a second logical action applied to the second computer-related source: (collaboration module, paragraphs [0041],[0043])

recording an associated relationship between the first logical action and the second logical action; (collaboration module, paragraphs [0041],[0043])

Mellen-Garnett does not explicitly indicate “and modifying the first logical action and the second logical action based on the recorded associated relationship.”

However, Choudhary discloses “and modifying the first logical action and the second logical action based on the recorded associated relationship” (‘Basic Multi-User Undo/Redo’ section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of “and modifying the first logical action and the second logical action based on the recorded associated relationship” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 41, Mellen-Garnett teaches

A system comprising (see abstract and background)

a first component comprising an action management module registering a first computer-related source and a second computer-related source; (collaboration module, paragraphs [0041],[0043])

Mellen-Garnett does not explicitly indicate “a second component comprising an action log, the action log containing action information relating to an action of the first computer-related source and an associated relationship with a recorded action of a the second computer-related source.”

However, Choudhary discloses “a second component comprising an action log, the action log containing action information relating to an action of the first computer-related source and an associated relationship with a recorded action of a the second computer-related source” (‘Basic Multi-User Undo/Redo’ section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of “a second component comprising an action log, the action log containing action information relating to an action of the first computer-related source and an associated relationship with a recorded action of a the second computer-related source” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 42, Mellen-Garnett teaches

A method in a computer system for displaying on a display device logical actions of a first computer-related source and a second computer-related source, the method comprising: (see abstract and background)

receiving a reference to an action of a first computer-related source and an associated relationship between the action of the first computer-related source and an action of a second computer-related source; (collaboration module, paragraphs [0041],[0043])

Mellen-Garnett does not explicitly indicate “displaying a representation of the action of the first computer-related source and a representation of the action of the second computer-related source; and displaying a representation of the associated relationship between the action of the first computer-related source and the action of the second computer-related source.”

However, Choudhary discloses “displaying a representation of the action of the first computer-related source and a representation of the action of the second computer-related source; and displaying a representation of the associated relationship between the action of the first computer-related source and the action of the second computer-related source” (‘Basic Multi-User Undo/Redo’ section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of “displaying a representation of the action of the first computer-related source

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and a representation of the action of the second computer-related source; and displaying a representation of the associated relationship between the action of the first computer-related source and the action of the second computer-related source" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

11. Claims 2-3,9-13,19-20,26-30,34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mellen-Garnett et al. ('Mellen-Garnett' hereinafter) (Publication Number 2003/0093479) in view of Choudhary et al. ('Choudhary' hereinafter) (Choudhary, Rajiv, Dewan, Prasun (1995): A General Multi-User Undo/Redo Model. In: Marmolin, Hans, Sundblad, Yngve, Schmidt, Kjeld (ed.): Proceedings of the Fourth European Conference on Computer-Supported Cooperative Work - ECSCW 95. 11-15 September, 1995, Stockholm, Sweden. p.231-246) and further in view of Myers ("The Case for an Open Data Model", by Brad A. Myers, Carnegie Mellon University, August 1998).

As per claim 2, Mellen-Garnett teaches
registering the first application with an action management module (paragraph [0043]).

Neither Mellen-Garnett nor Choudhary explicitly indicate "that receives action information about actions associated with multiple applications."

However, Myers discloses "that receives action information about actions associated with multiple applications" (page 19, second paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett, Choudhary and Myers because using the steps of "that receives action information about actions associated with multiple applications" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 3, Mellen-Garnett teaches
registering the second application with an action management module
(paragraph [0043]).

Neither Mellen-Garnett nor Choudhary explicitly indicate "that receives action information about actions associated with multiple applications."

However, Myers discloses "that receives action information about actions associated with multiple applications" (page 19, second paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett, Choudhary and Myers because using the steps of "that receives action information about actions associated with multiple applications" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 9,

Neither Mellen-Garnett nor Choudhary explicitly indicate “the first modification comprises: replacing the action of the first application with another action.”

However, Myers discloses “the first modification comprises: replacing the action of the first application with another action” (page 19, second paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett, Choudhary and Myers because using the steps of “the first modification comprises: replacing the action of the first application with another action” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 10,

Neither Mellen-Garnett nor Choudhary explicitly indicate “the action of the first application and the other another action are of a different action type.”

However, Myers discloses “the action of the first application and the other another action are of a different action type” (page 19, second paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett, Choudhary and Myers because using the steps of “the action of the first application and the other another action are of a different action type” would have given those skilled in the art the tools to improve the

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invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 11,

Neither Mellen-Garnett nor Choudhary explicitly indicate “the executing first modification comprises: replacing action of the first computer application with another action of the same action type having different action parameters.”

However, Myers discloses “the executing first modification comprises: replacing action of the first computer application with another action of the same action type having different action parameters” (page 19, second paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett, Choudhary and Myers because using the steps of “the executing first modification comprises: replacing action of the first computer application with another action of the same action type having different action parameters” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 12,

Neither Mellen-Garnett nor Choudhary explicitly indicate “the first modification comprises: replacing the action of the first application with multiple actions.”

However, Myers discloses "the first modification comprises: replacing the action of the first application with multiple actions" (page 19, second paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett, Choudhary and Myers because using the steps of "the first modification comprises: replacing the action of the first application with multiple actions" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 13,

Neither Mellen-Garnett nor Choudhary explicitly indicate "the step of recording at least one action includes recording a plurality of actions corresponding to the first application, the plurality of actions including the at least one action and at least one dependent action dependent on the at least one action."

However, Myers discloses "the step of recording at least one action includes recording a plurality of actions corresponding to the first application, the plurality of actions including the at least one action and at least one dependent action dependent on the at least one action" (page 19, second paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett, Choudhary and Myers because using the steps of "the step of recording at least one action includes recording a plurality of actions corresponding to the first application, the plurality of actions including the at

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least one action and at least one dependent action dependent on the at least one action" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claims 19-20,

These claims are rejected on grounds corresponding to the arguments given above for rejected claims 2-3 and are similarly rejected.

As per claim 26,

Neither Mellen-Garnett nor Choudhary explicitly indicate "the action management operation comprises: replacing the action of the first application and the recorded action of the second application with another action."

However, Myers discloses "the action management operation comprises: replacing the action of the first application and the recorded action of the second application with another action" (page 19, second paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett, Choudhary and Myers because using the steps of "the action management operation comprises: replacing the action of the first application and the recorded action of the second application with another action" would have given those skilled in the art the tools to improve the invention by providing

commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 27,

Neither Mellen-Garnett nor Choudhary explicitly indicate "the action management operation comprises: replacing the action of the first application and the recorded action of the second application with another action of a different action type."

However, Myers discloses "the action management operation comprises: replacing the action of the first application and the recorded action of the second application with another action of a different action type" (page 19, second paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett, Choudhary and Myers because using the steps of "the action management operation comprises: replacing the action of the first application and the recorded action of the second application with another action of a different action type" would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 28,

Neither Mellen-Garnett nor Choudhary explicitly indicate "the action management operation comprises: replacing the action of the first application and the recorded action

of the second application with another action of the same action type having different action parameters.”

However, Myers discloses “the action management operation comprises: replacing the action of the first application and the recorded action of the second application with another action of the same action type having different action parameters” (page 19, second paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett, Choudhary and Myers because using the steps of “the action management operation comprises: replacing the action of the first application and the recorded action of the second application with another action of the same action type having different action parameters” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 29,

Neither Mellen-Garnett nor Choudhary explicitly indicate “the action management operation comprises: replacing the action of the first application and the recorded action of the second application with multiple actions.”

However, Myers discloses “the action management operation comprises: replacing the action of the first application and the recorded action of the second application with multiple actions” (page 19, second paragraph).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett, Choudhary and Myers because using the steps of “the action management operation comprises: replacing the action of the first application and the recorded action of the second application with multiple actions” would have given those skilled in the art the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

As per claim 30,

This claim is rejected on grounds corresponding to the arguments given above for rejected claim 13 and is similarly rejected.

As per claim 34,

Mellen-Garnett does not explicitly indicate “the dependent action is automatically modified responsive to modification of the at least one action of the first application.”

However, Choudhary discloses “the dependent action is automatically modified responsive to modification of the at least one action of the first application” (‘Basic Multi-User Undo/Redo’ section, third paragraph)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Mellen-Garnett and Choudhary because using the steps of “the dependent action is automatically modified responsive to modification of the at least one action of the first application” would have given those skilled in the art

the tools to improve the invention by providing commonly provided undo/redo functionality. This gives the user the advantage of being able to correct mistakes.

Response to Arguments

12. Applicant's arguments with respect to claims 1-36,38-42 have been considered but are moot in view of the new ground(s) of rejection.

13. As per claims 37,43-48, Applicant's arguments filed 10/6/06 have been fully considered but they are not persuasive.

With regards to Applicant's argument that Mellen-Garnett does not disclose the limitations of claims 37 or 43-48, it is noted that Mellen-Garnett discloses the storage of data (paragraph [0046]-[0047]), which is all that the limitations disclose without further detailing positively reciting functionality. It is respectfully submitted that therefore Mellen-Garnett discloses the limitation.

Conclusion

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record, listed on form PTO-892, and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay A. Morrison whose telephone number is (571) 272-7112. The examiner can normally be reached on M-F 8-4:30.

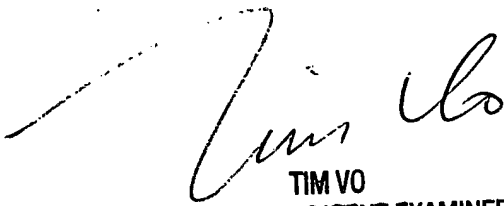
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached on (571) 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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